AT02 Gamification Document

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PRE-PRODUCTION

**Game Genre Analysis**

**Simulation**

**Core Mechanics:** Simulation games often revolve around intricate systems and mechanics that mirror real-world processes. These mechanics include:

1. **Resource Management:** Players must allocate and manage resources efficiently to achieve specific goals or outcomes within the simulation.
2. **Sandbox Environment:** Simulation games frequently provide open-world or sandbox environments where players have the freedom to experiment and make choices that impact the simulated world.
3. **Decision-Making:** Complex decision-making is a central mechanic, requiring players to strategize and plan their actions to achieve success.

**Gameplay Elements:** Simulation games incorporate various gameplay elements that contribute to their immersive nature:

1. **Realism:** Simulation games aim for realism, often replicating real-world scenarios, environments, and mechanics to create an authentic experience.
2. **Progression:** Players advance by achieving goals, completing tasks, and improving their simulated entities (cities, characters, etc.).
3. **Customization:** Many simulation games offer extensive customization options, allowing players to personalize their experience and tailor the simulation to their preferences.

**Player Objectives:** Player objectives in simulation games are diverse and often reflect real-world aspirations:

1. **Creation and Building:** Players might be tasked with constructing and managing cities, theme parks, or civilizations, fostering a sense of accomplishment as their creations thrive.
2. **Economic Success:** Simulation games frequently involve economic simulations, challenging players to generate profits, manage budgets, and make financially sound decisions.
3. **Problem Solving:** Players engage in critical thinking and problem-solving as they address challenges and obstacles within the simulation.

**Target Demographic**

The primary target audience for this application includes potential property buyers who are interested in remote properties, such as vacation homes or investment opportunities. They seek detailed information about the property and its surroundings before making a purchase decision.

also most likely aged 21 to 60 and an equal split of males and females, because it is unlikely that a minor would be looking to buy property.

**Consumer Habits**

Consumer habits may include Research-Oriented Behavior, Preference for Visual Content, Desire for Convenience, Need for Information, Interest in Interactive Experiences, Preference for Personalization, Concern for Sustainability and Interest in Future Potential.

**Game Design Principles and Gameplay Strategies**

**Objectives.** The idea that there needs to be a goal for the player to work towards.

**I can implement this by adding a checklist of tasks that need to be completed, this list could include locations to visit and objects to interact with.**

**Constraints.** The idea that the player needs limits on what that can do.

**I can implement this by limiting the players movement in the environment by removing jumping and making it so the player can only move by teleporting between waypoints placed around the environment.**

**Focal Point.** Having a focal point is the idea of never having the player guess where they must go or what they must do. You can implement this principle by adding markers, waypoints or build the map in such a way that it draws the player’s eyes to the objective.

**I can implement this by adding bright waypoints that will let the player know where to go.**

**Sound.** Sound is the idea of asking the question, what sound does that make? Is the sound appropriate? Is the sound necessary? Does it benefit the experience or hinder it?

**I can implement this by adding calm music that fits the scene and appropriate sound effects for interaction.**

**Version Control and Project Management**

Git Hub is the software I will use to conduct appropriate version control throughout the project. It will be used to save different versions of the project and any relating files and make them accessible from any computer.

<https://github.com/mooza99088/2024_IntroductionToGameDesign_AT03>

I will be managing my project tasks and schedule in a word document. This document will contain a schedule to keep me on track throughout the project and a list of all tasks that need to be completed.

**Asset Implementation**

**SPRITES**

For sprites I will be importing them as **png** files, png do take up more storage but can render at higher quality than jpg and other file types, they can also render transparency which makes them perfect for UI elements. They also use lossless compression.

**jpegs** are smaller files, so they take up less room, but they are also lossy files, and they don’t render at as high a quality as png,

**AUDIO**

For audio files I will be using **WAV** files because they are lossless audio files, they generally have better audio quality than other file types.

**MP3** files are smaller than WAV files, but they are also lossy files which is generally not good for games,

**3D MODELS**

For models I will import them as .**blend** files during development but for final version I will do them as FBX files, this is the most reliable way of importing and exporting models, FBX files can also render more detail than other file types which is why I will use them as my final version types.

**OBJ** files are widely supported in 3D software, OBJ files are generally smaller files but they cannot render animations.

**Monitoring Progress**

To keep track of my tasks I will have a set of weekly goals that need to be completed.

**Game Engine Evaluation**

**UNITY**

|  |  |
| --- | --- |
| PROS | CONS |
| small learning curve. | Does not have an in engine complete toolset. |
| Intuitive interface | New licencing policy. |
| uses C#, easy to learn language. | High system requirements for advanced projects. |

**UNREAL ENGINE**

|  |  |
| --- | --- |
| PROS | CONS |
| great graphics engine | Steep learning curve. |
| Comes with a complete toolset. | Not designed for making 2D and mobile games. |
| Free to use for games making less than $100,000 per year. | Uses C++, harder language to learn. |

Based off the comparison and extra research the most suitable game engine for the project is unity.

**Peer Review Prototype**

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| --- |
| Add ambience instead of music, change font, add banner reminding controls, fix spelling and grammar. |

**User Trial Improvements**

**CREDITS**

01\_Lanes\_Island\_Ambient\_48\_24.wav by tomtenney -- https://freesound.org/s/125224/ -- License: Attribution 4.0